The PDSF Computing Facility at LBNL

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During the past year, the computing facility known as PDSF was relocated from it original home at the SSC laboratory in Texas to LBNL. PDSF is a multi-platform workstation farm designed to support the computing needs of detector development projects at the SSC laboratory. It was moved to LBNL to take advantage of both the scientific computing environment provided by the National Energy Research Scientific Computing Center (NERSC) and the strong presence in Nuclear Science (NS) and High Energy Physics (HEP) research found at LBNL. The PDSF facility is being supported jointly by NERSC, the Nuclear Science Division, and the Physics Division. PDSF will be used to meet the computing requirements of large-scale data analysis and detector simulation projects in HEP and NS investigations.

PDSF at LBNL was initially brought on-line in a temporary form during the summer of this past year before moving to its final home in October. The Phase I hardware configuration, shown in Fig. 1, was designed using equipment obtained from the SSC laboratory. The current status of the facility can be found on the PDSF WWW pages noted in Fig. 1. At present, the PDSF systems include,

- 32 HP 9000/735(25) workstations
- 32 SUN Sparc10 workstations
- 2 80-Gbyte Data-Vault disk storage
- 2 SGI Challenge-L data servers
- 100BaseT external ethernet connection
- FDDI internal PDSF network

The nuclear science research community has been very active in making use of PDSF. A listing of NS groups currently using or preparing to use the facility is given below.

STAR is running event and detector simulation projects on PDSF.

NA49 is preparing to use PDSF for data analysis and physics simulations.

PHENIX is preparing to run event and detector simulation projects on PDSF.

E895 is preparing to use PDSF as a data analysis facility.

EOS-Bevalac is analyzing data on PDSF

SNO will use PDSF in developing data analysis systems and plans to analyze data on PDSF.

Gammasphere is preparing to extend its data analysis program to PDSF.

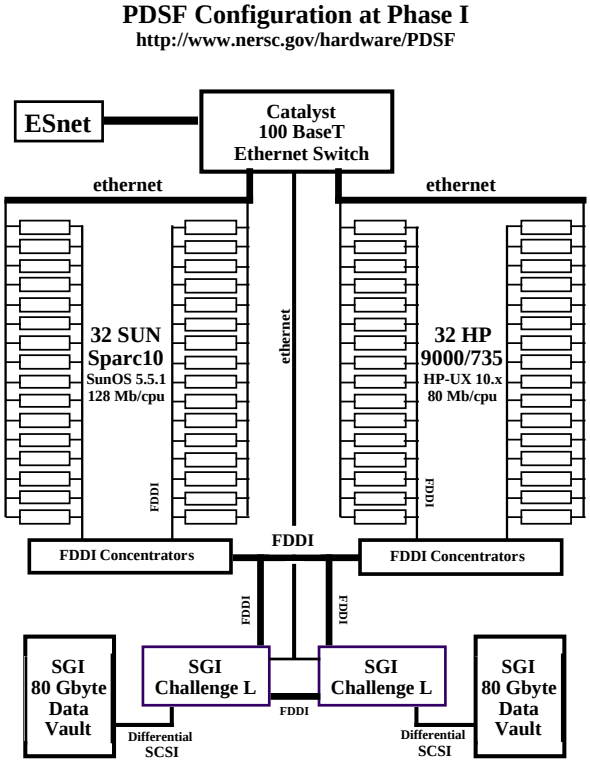

Figure 1: PDSF hardware configuration